Nature's Healer, Science's Innovator

ACTV
BIOTECH

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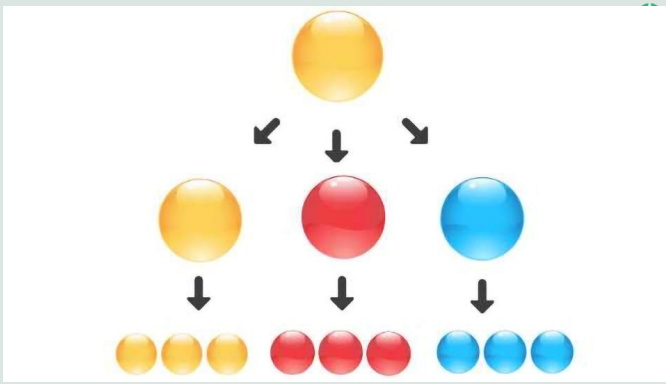
Plant Stem Cells



Plant Stem Cells



Plant stem cells are undifferentiated cells found in the **meristematic parts** of plants that enable the **growth, development, and repair of plants.**

These cells are **Totipotent** cells, which have the ability to transform into any cell or tissue of the plant, and can even turn into an entirely new plant.

Plant Stem Cells



High Regenerative Capability: Plant stem cells renew damaged or aging cells, keeping the plant healthy.

Active Ingredients: Plant stem cells contain beneficial components such as **antioxidants, vitamins, minerals and secondary metobolites**.

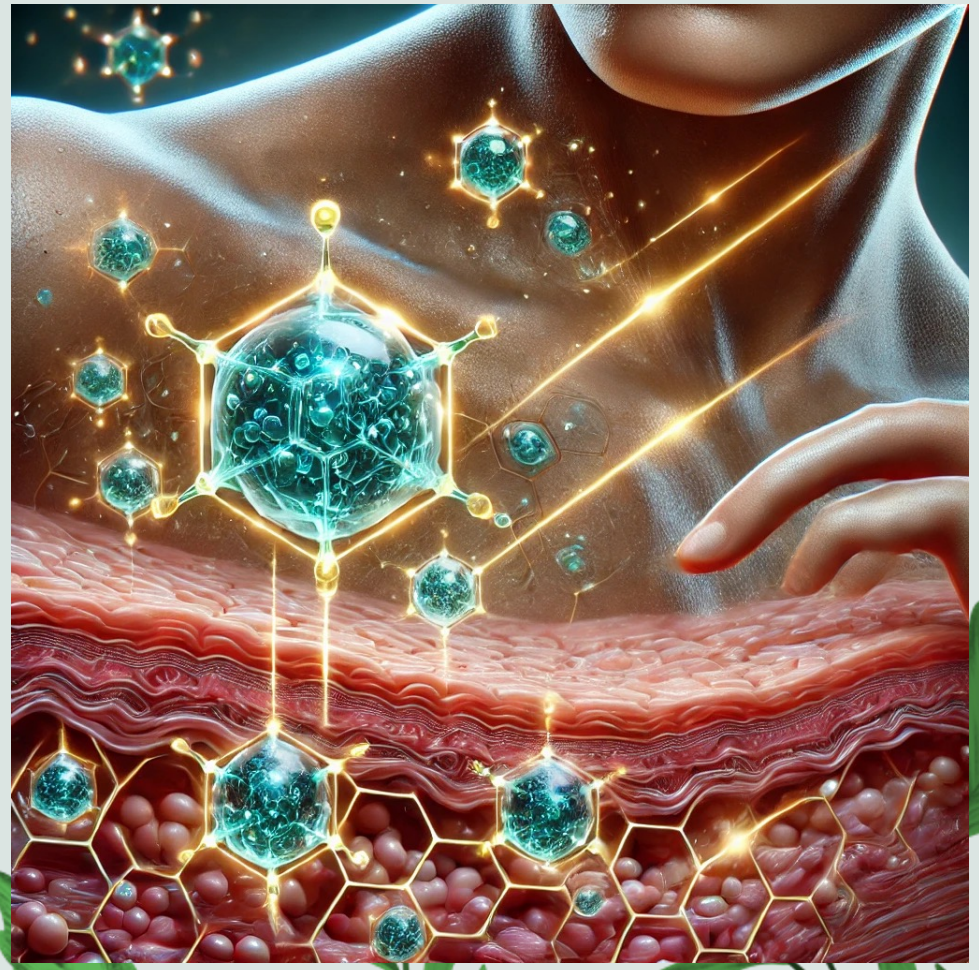
These components are used in skincare products to help renewal and maintain youthful skin.

Why Plant Stem Cells are important for Cosmetics?

Bioavailability

Plant stem cell bio-actives, penetrate the skin quickly because they are completely natural and compatible with tissues.

- Better absorbed
- More effective



Why Plant Stem Cells are important for Cosmetics?

Biocompatible

Plant stem cell bio-actives are compatible and safe for the skin because they are 100 % naturally sourced.

- No allery
- No irritation



Why Plant Stem Cells are important for Cosmetics?

Sustainability and Ethical Sourcing

Using plant stem cell is a more sustainable and ethical approach compared to harvesting mature plant tissues.



ACTV Biotechnology

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Office
&
Manufacturing Plant

Büyükçekmece/İstanbul/Türkiye

R&D Laboratories



Plant Cell Culture



Incubation



Chemical Analyis



Extraction

Manufacturing Bioreactors











Quality Control Laboratories



Test Lab



Incubation



Stability

ACTV Biotechnology

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ProliCell®
from nature to natural

Our R&D efforts are not limited to new actives. Thanks to our patent pending technology, ProliCell®, we enhance the targeted therapeutic properties of stem cells with different effects from same plant.

Much potent technology compared to conventional methods.



ProliCell®
from nature to natural

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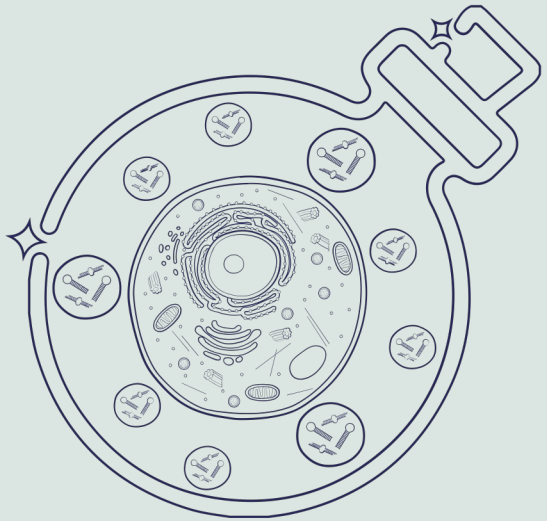
Manufacturing Tech & Process

ACTV's **ProliCell®** technology is applied to manufacturing process of **all products.**

Through the technology developed by ACTV scientists, we customize efficacy of plant stem cells with **exosomes and small RNAs**



Magic Effect with Small RNA

Exosomes and Small RNAs
Why that important ?



Exosomes send specific signals to skin cells, triggering renewal and repair processes.

Exosomes support skin health by safely and effectively delivering active ingredients, while **small RNAs** optimize skin functions through gene regulation

Exosoms and Small RNAs Counts

ProliCell® Products contain exosomes ranging in size from 100 to 600 nm, with the majority of exosomes being 150 to 250 nm in size.



1 gram ProliCell® Product:

-Contains minimum 3,35x10^{10} exosomes.

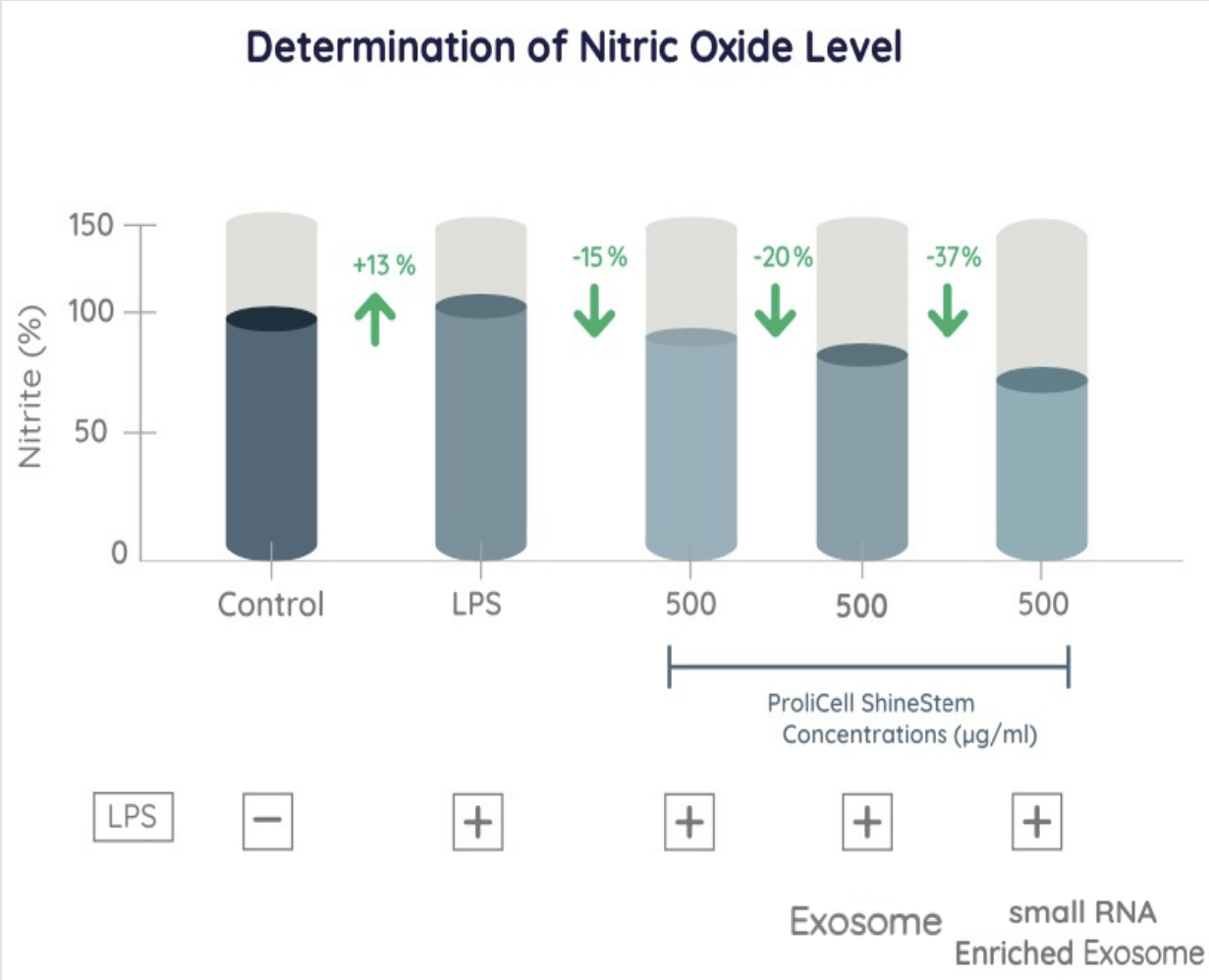
-Contains more than 17 ng small RNAs.

Exosomes Counting: The quantity of exosomes is determined by Nanoparticle Tracking Analysis (NTA), The stability of exosomes is visualized using a Scanning Transmission Electron Microscope (STEM).

ProliCell® Technology
Integration of Exosomes and Stem Cell Compound

Synergistic Effects:

The combined use of plant stem cell bio-actives **enhanced with exosomes** can create synergistic effects, boosting the overall efficacy of cosmetic products.



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Our Products	Main Effects
ProliCell®-AvocStem	Anti-Oxidant
ProliCell®-Centella	Anti-Wrinkle, Anti-Scar
ProliCell®-GoldStem	Crow's feet wrinkles, Forehead wrinkles
ProliCell®-IsoStem	Skin blemishes, Skin tone
ProliCell®-Malva	Anti-Hairloss, Healthy sculp
ProliCell®-Prunella	Marionette lines, Nasolabial lines
ProliCell®-Quince	Elasticity, Moisturizing, Anti-Wrinkle
ProliCell®-Rose	Against environmental pollution
ProliCell®-ShineStem	Eye contour, Dark circles
ProliCell®-SymStem	Anti-Redness
ProliCell®-SlimStem	Anti-Cellulite
ProliCell®-MeadowGlow	Skin Brightening





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Quality Certificates



















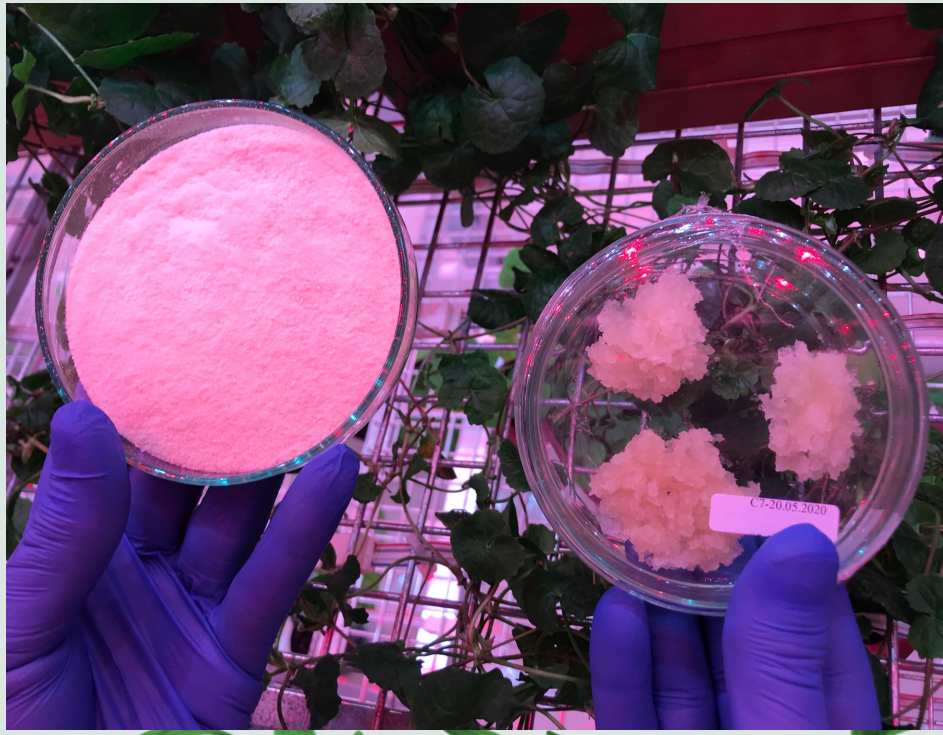


Sustainability

We adopted the **sustainable and eco-friendly** practices outlined in ACTV's organizational philosophy.

We work with **rare plants** with high efficiency.

Creating a non-stop cultivation from small parts of the plant rather than agriculture!



Sustainability



In our production process;

- No soil usage,
- All manufacturing process in bioreactors,
- Production process independent from seasons or whether conditions…
- Very less water and electricity consumption,
- All components are eco-friendly…

Sustainability

Instead, Our products has **no possibility to contain**,

- ✗ chemicals,
- ✗ pesticides,
- ✗ herbicides,
- ✗ other soil contaminants
- ✗ GMOs.

We ensure product safety.







